

Notice of Allowability

Application No.

10/612,099

Examiner

Allen C. Ho

Applicant(s)

HERVE ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 16 June 2006.
2. ☒ The allowed claim(s) is/are 9-21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 9-21 are allowed.
2. The following is an examiner's statement of reasons for allowance:

With regard to claims 9-20, the prior art discloses a method for examining an object that comprising least two categories of materials in order to determine a value of a physical parameter of each of the materials, the method comprises the steps of: applying radiation through the object, the radiation belonging to a broadband energy spectrum; taking a plurality of measurements of the radiation after having passed through the object, the measurements being taken at respective energy bands in the spectrum; selecting a plurality of pairs of the energy bands; and defining, for each of the materials and each of the pairs, a function of an intermediate parameters based on the measurements in the energy bands in the pair and on coefficients obtained in a previous calibration. However, the prior art fails to disclose the steps of: defining a weighted sum of the intermediate parameters for each of the materials, the intermediate parameters being weighted by weighing coefficient; calculating values of the weighting coefficients by minimizing a variance of the weighted sum; and calculating, for each of the materials, the value of the physical parameter with the weighted sum based on the values of the weighted coefficients and the values of the intermediate parameters as claimed.

With regard to claim 21, the prior art discloses a method for examining an object comprising at least two categories of materials in order to determine a value of a physical parameter of each of the materials, the method comprises the steps of: applying radiation through

the object, the radiation belonging to a broad band energy spectrum; taking a plurality of measurements of the radiation after having passed through the object, the measurements being taken at respective energy bands in the spectrum; selecting a plurality of pairs of the energy bands, wherein the pairs are equal in number to the number of the energy bands less one, and wherein each one of the pairs have the same energy band; and defining, for each of the materials and each of the pairs, a function of an intermediate parameter based on the measurements in the energy bands in the pair and on coefficients obtained in a previous calibration using phantoms made of material having known thickness and properties similar to the materials of the object with respect to irradiation by the radiation, each of the intermediate parameters being an estimation of the value of the physical parameter for one of the materials. However, the prior art fails to disclose the steps of: defining a weighted sum of the intermediate parameters for each of the materials, the intermediate parameters being weighted by weighing coefficient; calculating values of the weighting coefficients by minimizing a variance of the weighted sum; and calculating, for each of the materials, the value of the physical parameter with the weighted sum based on the values of the weighted coefficients and the values of the intermediate parameters as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

3. Applicant's arguments filed 16 June 2006 with respect to the drawings have been fully considered and are persuasive. The objection of the drawings has been withdrawn.
4. Applicant's arguments filed 16 June 2006 with respect to the specifications have been fully considered and are persuasive. The objections of the specification have been withdrawn.
5. Applicant's arguments filed 16 June 2006 with respect to claims 1-8 have been fully considered and are persuasive. The rejection of claims 1-8 under 35 U.S.C. 112, second paragraph, has been withdrawn.
6. Applicant's arguments filed 16 June 2006 with respect to claims 1, 2, and 4 have been fully considered and are persuasive. The rejection of claims 1, 2, and 4 under 35 U.S.C. 102(e) as being anticipated by Dolazza *et al.* (U. S. Patent No. 6,678,350 B2) has been withdrawn.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Adriaansz (U. S. Patent No. 6,574,302 B2) disclosed a method and a system for determining a density of a volume in an image data set.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Allen C Ho

Allen C. Ho, Ph.D.
Primary Examiner
Art Unit 2882

23 June 2006